

Appl. No. 09/944,318
Amendment and/or Response
Reply to Office action of 8 July 2005

Page 2 of 9

Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously presented) A display device comprising:

a display panel having a first light-transmissive substrate provided with electrodes at the area of pixels arranged in rows and columns, a second light-transmissive substrate, and electro-optical material between the two substrates[.];
and

an illumination system situated on the side of the second substrate remote from the electro-optical material, said illumination system including an optical waveguide of an optically transparent material having an exit face facing the display panel,

wherein the optical waveguide is adapted for selectively coupling out light to the display panel for a group of rows of pixels or a group of columns of pixels and for coupling in light in a direction which is substantially parallel to the exit face.

2. (Previously presented) The device of claim 1, wherein the illumination system includes at least one backlight and an optical waveguide having at least one entrance face for light, while light from the backlight can be coupled in along the entrance face extending substantially transversely to the exit face, and a selectively switchable light switch is situated between the backlight and the entrance face.

3. (Previously presented) The device of claim 2, wherein the illumination system includes a backlight having an entrance face at the area of at least one end face of the optical waveguide extending substantially transversely to the rows, while light from the backlight can be coupled in along said end face.

Appl. No. 09/944,318
Amendment and/or Response
Reply to Office action of 8 July 2005

Page 3 of 9

4. (Previously presented) The device of claim 2, wherein the selectively switchable light switch includes an electro-optical switching device with an electro-optical material between two substrates, at least one substrate being provided with strip-shaped electrodes.

5. (Previously presented) The device of claim 1, wherein the illumination system includes sub-segments and at least one backlight with an entrance face for light for each sub-segment, while light from the backlight can be coupled into the sub-segments.

6. (Currently amended) ~~A picture display~~ The device as claimed in of claim 5, wherein the light from the backlight can be coupled in along an entrance face extending at an angle to the exit face, and selectively switchable light switches are situated between the backlight and segments of the optical waveguide.

7. (Currently amended) The device of claim ~~4~~ 6, wherein at least one of the selectively switchable light switches includes a switchable reflective mirror.

8. (Previously presented) The device of claim 1, wherein the optical waveguide includes an electro-optical switching device with an electro-optical material between two substrates, at least one substrate being provided with strip-shaped electrodes on the side of the electro-optical material.

9. (Previously presented) The device of claim 1, wherein the illumination system includes at least one backlight having an entrance face for light at the area of the optical waveguide, while light from the backlight can be coupled in along an entrance face extending substantially transversely to the exit face, and parts of the backlight are selectively switchable between an on-state, having a high light intensity, and an off-state.

Appl. No. 09/944,318
Amendment and/or Response
Reply to Office action of 8 July 2005

Page 4 of 9

10. (Previously presented) The device of claim 9, wherein the backlight includes a prismatic element at the area of the entrance face.

11. (Currently amended) The device of claim 1, wherein the display device includes a drive unit capable of presenting signals to data and column electrodes for the purpose of writing pixels, and selectively activating a part of the illumination system associated with the group of rows of pixels.

12. (Previously presented) The device of claim 11, wherein the drive unit introduces a delay between the presentation of the signals to the data and column electrodes and the selective activation of the part of the illumination system associated with the group of rows or pixels.

13. (Previously presented) An illumination system comprising an optical waveguide of an optically transparent material having an exit face, and means for coupling light on at least one entrance face in a direction parallel to the exit face, wherein the optical waveguide is provided with means for selectively coupling in light for a part of the exit face.

14. (Previously presented) The system of claim 13, wherein the illumination system comprises at least one backlight having an entrance face for light at the area of the optical waveguide, while light from the backlight can be coupled in along an entrance face extending substantially transversely to the exit face, and a selectively switchable light switch is situated between the backlight and the entrance face.

15. (Previously presented) The system of claim 14, wherein the selectively switchable light switch comprises an electro-optical switching device with an electro-optical material between two substrates (23, 24) which are provided with strip-shaped electrodes (26, 27) on the side of the electro-optical material.

Appl. No. 09/944,318
Amendment and/or Response
Reply to Office action of 8 July 2005

Page 5 of 9

16. (Previously presented) The system of claim 13, wherein the illumination system comprises sub-segments and at least one backlight with an entrance face for light for each sub-segment, while light from the backlight can be coupled into the sub-segments.

17. (Previously presented) The system of claim 16, wherein the light from the backlight can be coupled in along an entrance face extending at an angle to the exit face, and selectively switchable light switches are situated between the backlight and segments of the optical waveguide.

18. (Previously presented) The system of claim 13, wherein the selectively switchable light switch comprises a switchable reflective mirror.

19. (Previously presented) The system of claim 13, wherein the optical waveguide comprises an electro-optical switching device with an electro-optical material between two substrates (33, 34), at least one substrate being provided with strip-shaped electrodes (36, 37) on the side of the electro-optical material.

20. (Previously presented) The system of claim 13, wherein the illumination system comprises at least one backlight having an entrance face for light at the area of the optical waveguide, while light from the backlight can be coupled in along an entrance face extending substantially transversely to the exit face, and parts of the backlight are selectively switchable between an on-state, having a high light intensity, and an off-state.

21. (Canceled)

22. (Previously presented) The device of claim 3, wherein the selectively switchable light switch includes an electro-optical switching device with an electro-optical material between two substrates, at least one substrate being provided with strip-shaped electrodes.